

code for storing said degrees of presence;
code for producing a statistical profile of said manipulated cells by combining the morphological values or degrees of presence of said morphological values in said plurality of different cell lines whereby a statistical profile of said manipulated cells is produced; and
code for mapping said plurality of manipulated cells based upon said statistical profile,
wherein

said morphological value is derived from a first component of a cell and a second component of said cell and wherein said morphological value is one or any combination of a cell count, an area, a perimeter, a length, a breadth, a fiber length, a fiber breadth, a shape factor, an elliptical form factor, an inner radius, an outer radius, a mean radius, an equivalent radius, an equivalent sphere volume, an equivalent prolate volume, an equivalent oblate volume, an equivalent sphere surface area, an average gray value, a total gray value, or an optical density;
and

a computer readable storage medium for holding the codes.

C1
Cencl

REMARKS

Applicants respectfully request reconsideration of the rejections set forth in the Office Action mailed on July 16, 2002. Claims 40-43, 45, and 51 are pending. All claims have been rejected.

This amendment is to expedite prosecution and should not be construed as acquiescence in any ground of rejection. Applicants reserve the right to prosecute the originally filed claims in the future. A clean version of the amended claims with instructions for entry pursuant to 37 C.F.R. §1.121(c)(1)(i) is included above. A marked-up version of the amended claims pursuant to 37 C.F.R. §1.121(c)(1)(ii) is attached. The comments in the Office action are now addressed in turn.

Rejections under 35 U.S.C. §112

The Examiner rejected a number of claims under 35 U.S.C. §112, second paragraph, due to an alleged lack of clarity in the language "plurality of different cell lines". The Examiner maintains that the phrase could refer to cells of one cell type exposed to a single manipulation

whereas another cell line can be cells of the same type exposed to different manipulations, or different cell lines can be different cell types, etc.

Although the present invention is applicable for use with each of these "different cell lines", Applicants have amended the claims to focus on one of the preferred embodiments, i.e., the use of a plurality of cell lines of different cell types.

Applicants believe that the Examiner's concerns have been addressed and request that rejection be withdrawn.

Rejections under 35 U.S.C. §102

Claims 40-43, 45 and 51 have been rejected under 35 U.S.C. §102(b) as being anticipated by Giuliano et al. (1997) J. of Biomol. Screening 2:249-259 ("Giuliano"). The rejection has been maintained and reiterated from the previous Office Action mailed October 23, 2001. Applicants disagree and traverse the rejection.

As repeatedly indicated by the courts, anticipation requires that all of the elements and limitations of the claim be found within a single prior art reference. There must be no difference between the claimed invention and the disclosure provided by the reference, as viewed by a person of ordinary skill in the field of the invention. (*Scripps Clinic & Research Fdm. v. Genentech, Inc.*, 927 F.2d 1565, 1576 [Fed. Cir. 1991]). Furthermore, "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (*In re Royka*, 490 F.2d 981, 180 USPQ 580 [CCPA 1974]). Applicants submit that Giuliano does not teach every element of the claims; therefore, that the invention, as claimed herein, is not anticipated by Giuliano.

The teachings of Giuliano have been described in Applicants previous response. Applicants have amended the claims here to make even more explicit the distinctions between the claimed invention and the cited art. Specifically, Applicants have amended the claims herein such that a statistical profile of the manipulated cells is produced by "combining the morphological values or degrees of presence of each of said plurality of different cell lines".

Applicants maintain that the cited art does not teach or suggest combining data from a plurality of different cell lines to do multivariate analysis or classification of drug processes. Giuliano does not teach or suggest any methods for data comparison that quantify and/or qualify the effects of a manipulation on different cell lines or methods for comparing thereof.

As the elements of Giuliano are *not* the same as those presently claimed, Applicants submit that Giuliano does not anticipate the pending claims and respectfully request that this rejection be withdrawn.

Applicants believe that the claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



Lauren L. Stevens
Reg No. 36,691

P.O. Box 778
Berkeley, CA 94704
(650) 961-8300

MARKED UP VERSION OF AMENDED CLAIMS

40. (Thrice Amended) A computer program product for mapping a plurality of cells from a plurality of different cell lines of different cell types after applying a manipulation to said plurality of cells, based upon a statistical analysis of a morphological value, said computer program product comprising:

code for capturing a morphological value from each of said plurality of manipulated cells for each of said plurality of different cell lines;

code for assigning a degree of presence for each of said morphological values;

code for storing said degrees of presence;

code for producing a statistical profile of said manipulated cells by [statistically analyzing]combining the morphological values or [the] degrees of presence of said morphological values in said plurality of different cell lines whereby a statistical profile of said manipulated cells is produced;[thereof] and

code for mapping said plurality of manipulated cells based upon said statistical profile,
wherein

said morphological value is derived from a first component of a cell and a second component of said cell and wherein said morphological value is one or any combination of a cell count, an area, a perimeter, a length, a breadth, a fiber length, a fiber breadth, a shape factor, an elliptical form factor, an inner radius, an outer radius, a mean radius, an equivalent radius, an equivalent sphere volume, an equivalent prolate volume, an equivalent oblate volume, an equivalent sphere surface area, an average gray value, a total gray value, or an optical density;
and

a computer readable storage medium for holding the codes.